5,838,088. If a variety of surface wave transducers are used to generate various surface waves that pass through a passage of varying length, the location of the mechanical loading can be located by means of the differing delay times. Surface waves can be generated with the help of interdigital transducers (IDT) chiefly on piezoelectric substrates (R.M. White and F.W. Voltmer, Applied Physics Letters 7, pages 314 ff (1965)). Interdigital transducers have two electrodes with finger type extensions, which fingers interleave. The propagation qualities of surface waves depend on the finger interval and the phase velocity in the substrate material. According to EP 0 867 826 A2, such an interdigital transducer arrangement can be scanned via an antenna and a transmitter. Surface wave components are used, among other purposes, as dispersive high frequency filters. To increase the bandwidth, tapered interdigital transducers (TIDT) are used, as described in U.S. 4,908,542, U.S. 4,635,008, U.S. 5,831,492, and U.S. 5,831,494. In tapered interdigital transducers of thus type, the finger interval is not constant, it changes along the transducer axis.- -;

Change page 8, line 14 to page 9, line 5 to read as follows:

- -The use of tapered interdigital transducers has proved particularly advantageous. The frequency-determining finger interval of such tapered interdigital transducers changes along the axis of the surface wave transducer. The wavelength of a surface wave is at 0 approximation equal to the quotients of sound velocity and frequency of the surface wave. If at a known sound velocity the frequency input into the tapered interdigital transducer is determined, the surface wave is beamed only in a spatial range in which the interval of the individual fingers of the tapered interdigital transducer accords with the wavelength. In this way the spatial propagation range of

the surface wave can be determined very precisely.

Appropriate tapered interdigital transducers to receive the surface waves after their passage through the active surface lie opposite the tapered interdigital transducer for generating surface waves.- -;

Change page 12, line 6 to read as follows:

- -Fig. 1 the principal method of functioning of a tapered interdigital transducer, - -;

Change page 12, line 17 to page 13, line 2 to read as follows:

- -Fig. 1 illustrates in schematic form a tapered interdigital transducer 4 positioned, for example, on a piezoelectric substrate. It consists of electrodes 5, 7, which have finger-like extensions. In area 3 the finger-like extensions fit into electrodes 5 and 7. Via the feed 2 a voltage can be applied, at a desired frequency, to electrodes 5 and 7. In the example illustrated, interval 8 of the individual fingers changes linearly from position X_0 to position X_n. In a deviation from the illustrated linear change, a complex function of the interval change can also be provided.- -; and

Change page 16, lines 6-10 to read as follows:

- -Fig. 3a shows another embodiment as an example. It provides for two interdigital transducer pairs 4, 6 and 104, 106. Transducer pair 4, 6 serves to generate and detect surface waves 1, while transducer pair 104, 106 serves to generate and reveal surface waves 101. Both transducer pairs are tapered interdigital transducers, as described with reference to Fig. 1 - -.